The Human Genome Project: Some Assembly Required
The Methods, Goals, and Implications of the Human Genome Project

The 1994 Graduate Student Symposium
April 15–17, 1994

Keynote Address:

Leroy Hood, University of Washington School of Medicine. *Perspectives on the Human Genome Project.*

Session I: Finding the Parts – Large Scale Sequencing Technology

Bob Waterston, Washington University School of Medicine. *The C. elegans Genome Project: Lessons.*

Leroy Hood, University of Washington School of Medicine. *Large Scale DNA Sequencing.*

Stephen Fodor, Affymetrix, Santa Clara, CA. *Oligonucleotide Arrays and Sequence Analysis by Hybridization.*

Session II: Assembly Instructions – Analysis of Genomic Sequence Data

David Searls, University of Pennsylvania School of Medicine. *Genome Linguistics.*

Richard Mural, Oak Ridge National Laboratory. *Combining Neural Networks and Expert Systems to Identify Features in DNA Sequences.*

Phil Green, Washington University School of Medicine. *Ancient Conserved Regions: Implications for Gene Identification.*

Session III: Trouble Shooting – Understanding Human Genetic Disease

Katheleen Gardiner, Elenor Roosevelt Institute. *Chromosome 21: Its Associated Genetic Diseases and Its Place in the Human Genome Project.*

Charles Laird, University of Washington. *Triplet Repeat Disease and Genomic Imprinting.*

Mary-Claire King, University of California, Berkeley. *Mapping Genetic Disorders.*

Session IV: Disclaimers – Ethical, Legal, and Social Issues

Kenneth Kidd, Yale University Medical School. *Diverse Human Genomes.*

Dean Hamer, National Institutes of Health. *Genetics and Sexual Orientation.*

Michael Yesley, Los Alamos National Laboratory. *The NIH-DOE ELSI Program.*

Self vs. Nonself:
Modes of Organismal Recognition and Defense

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Keynote Speaker:

Philippa Marrack, National Jewish Center for Immunology and Respiratory Medicine. *Self vs. Nonself.*

Session I: Nonvertebrate Recognition and Defense: Discriminating Within a Species

William Hildemann, University of California, Los Angelos. *Allogeneic Recognition in Sponges,*

June Nasrallah, Cornell University. *Self vs. Nonself in Species Propagation: Plant Self-Incompatability.*

Irving Weissman, Stanford University Medical Center. *Recognition of Self in Protochordates: The FuHC Locus in Tunicates.*

Session II: Nonvertebrate Recognition and Defense: Discriminating Among a Species

Elisabeth Raleigh, New England Biolabs, Beverly, Massachusetts. *The Methylation-Dependent Restriction Enzyme mcrBC in E. coli as a Defense Against T-even Phages.*

Hans Boman, Stockholm University, Stockholm, Sweden. *Immune Reactions in the Cecropia Moth.*

Frederick Ausubel, Harvard Medical School. *Disease Resistance in Arabidopsis thaliana.*

Christopher Bayne, Oregon State University. *Possible Role of Lectins in Self/Nonself Recognition in Mollusks.*

Session III: Vertebrate Immune Recognition and Defense

Ellen Meier, National Institute of Neurological Disorders and Stroke, Bethesda, Maryland. *The Mx Genes and Host Resistance to Viral Pathogens.*

Gary Litman, University of South Florida. *Vertebrate Antibody Gene Organization in Sharks.*

Ronald Schwartz, National Institutes of Health. *T Cell Anergy.*

David Nemazee, National Jewish Center for Immunology and Respiratory Medicine. *B Cell Tolerance: Clonal Deletion, Clonal Anergy, and Receptor Editing.*

Session IV: Vertebrate Immune Recognition and Defense: When Things Aren't Quite What They Should Be

David Wofsy, University of California, San Franscisco. *When Self Becomes Nonself: Systemic Lupus Erythematosis.*

John Kappler, National Jewish Center for Immunology and Respiratory Medicine. *Overriding Specificity: Superantigens.*

Anthony Fauci, National Institutes of Health. *HIV vs. the Immune System: How It Wages an Effective War.*